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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,319

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EXAMINER

JACOBSON, MICHELE LYNN

ART UNIT

PAPER NUMBER

1782

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,319	Applicant(s) ADAMS ET AL.	
	Examiner MICHELE JACOBSON	Art Unit 1782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 8-10, 12, 14, 16-18 and 20-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8-10, 12, 14, 16-18 and 20-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Examiner Notes

1. Any objections and/or rejections made in the previous action, and not repeated below, are hereby withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 14, 16, 21, 24, 25, and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1, 16, 21, 24 and 25 all recite polypropylene as an adhesive material between a paper layer and the mesh layer. There is no disclosure of a polypropylene adhesive layer for bonding the mesh layer to a paper layer in applicant's originally filed specification. Claims 14 and 26 both recite a "paper-paper adhesive material, preferably polyvinyl acetate". There is no disclosure of a "paper-paper adhesive material, preferably polyvinyl acetate" applicant's

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originally filed specification. Therefore, there is no support for these newly added limitations. Appropriate correction is required.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 14 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 14 and 26 recite the limitation "paper-paper adhesive". This material is not disclosed in applicant's specification so no guidance is available as to what adhesive materials would meet the limitation of "paper-paper adhesive". Therefore, one of ordinary skill in the art would not be reasonably apprised of the full scope and breadth of the invention claimed.

7. Regarding claims 14 and 26, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

8. Since it is unclear what is meant by "paper-paper adhesive" for the purpose of examination any adhesive material will be interpreted to read on the limitations of claims 14 and 26. Appropriate correction is required.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3, 6, 8-10, 12, 14, 16-18 and 20-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weekers U.S. Patent No. 5,328,142 (hereafter referred to as Weekers) and Fyfe U.S. Patent No. 6,295,782 (hereafter referred to as Fyfe).

11. Weekers teaches a spirally wound kraft paper tube for use in concrete column forming comprising at least one wound layer of water impermeable plastic film intermediate the paper layers. (Col. 1, lines 36-45) Each of the paper layers has a thickness preferably less than 0.5 mm. (Col. 2, lines 56-57) The plastic layer maybe a polyethylene film not greater than 0.3 mm thick with the overall thickness of the tube wall preferably between 0.5 and 3 mm. (Col. 2, lines 57-66) The polyethylene plastic layer renders the wall of the tube substantially impervious to the passage of water. (Col. 2, line 67-Col. 3, line 3)

12. Weekers acknowledges that in view of the thin, flexible nature of the walls of the tube, it may not have sufficient integrity to be self-supporting in the case of relatively long tubes. Specifically, long tubes may tend to bulge, particularly at the bottom of the tube, from the weight of the concrete. To alleviate this problem, Weekers suggests

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using an additional split support tube held together with wires or bands which closely surround and support the forming tube. (Col. 3, line 61-Col. 4, line 9)

13. Weekers is silent regarding disposing a polymer mesh in between the paper and polyethylene layers.

14. Fyfe teaches a concrete forming tube comprising a composite shell made by spirally winding resin impregnated fabric layers around a liner. (Col. 2, lines 1-5) The fabric may comprise fibers such as polymeric materials like polyaramid, Kevlar, polyethylene and aramid. (Col. 4, lines 1-2) The number of warp yarns per inch is preferably between about 5 and 20 and the number of fill yarns per inch is preferably between about 0.5 and 5. (Col. 4, lines 27-30) The fabric layers are recited to be impregnated with resin in order to function properly. The resin matrix selected must be tough and waterproof. (Col. 5, lines 25-34) The liner material utilized is formed of water-resistant and impermeable material to protect the concrete core from moisture and corrosive materials as well as to protect the composite shell from the alkalinity in the concrete core. (Col. 6, lines 1-4) Polyethylene is recited as a suitable liner material. (Col. 6, lines 5-6)

15. Both Weekers and Fyfe are directed towards concrete forming tubes comprising waterproof polyethylene layers that provide a means for supporting the concrete forming tube. Fyfe solves the problem of bulging of the concrete forming tube disclosed by Weekers by providing a resin impregnated wrapped textile reinforcement layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have employed a resin impregnated textile reinforcement layer such as that

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disclosed by Fyfe in the invention of Weekers in order to provide structural reinforcement to the tube disclosed by Weekers and to solve the problem of the concrete forming tube bulging at the bottom. One of ordinary skill would have disposed the textile layer between the polyethylene and paper layers recited by Weekers since the polyethylene layer must necessarily be disposed on the interior of the tube to provide the function of protecting the concrete from water and protecting the forming tube from alkalinity as disclosed by Weekers and Fyfe respectively.

16. Regarding claims 1, 14, 16, 17, 22, 24, 25 and 26: Fyfe discloses that the resin for the fabric layer must be tough and waterproof and both Weekers and Fyfe employ polyethylene as a waterproof material that must be tough to be in contact with the concrete used in the forms. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized polyethylene or HDPE as the resin for impregnating the fabric layer since polyethylene is both tough and waterproof. Such multilayer laminate would comprise a sub-layer comprising a paper layer, a fabric layer impregnated with polyethylene which provides bonding to the paper layer and an additional a polyethylene layer. A spirally wound tube including such a laminate formed by bonding the sublayers together in the conventional manner of forming butt joints would have been the same invention as claimed in claims 1, 14, 16, 17, 22, 24, 25 and 26.

17. Regarding claims 2 and 18: Regarding the thread density claimed, in the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a

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prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990)

18. Regarding claims 3, 6 and 20: It would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected grammage weights and tensile strength of the materials used that would be appropriate for the concrete forming tube application. The obvious selection of materials of appropriate strength would have produced the same invention as claimed in claims 3 and 20.

19. Regarding claims 8-10, 12 and 28: It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the tube produced by the combination of Weekers and Fyfe whatever thickness was necessary for the application the tubing was used for. The thickness of the tube is a result effective variable that controls the strength of the tube. This obvious optimization of the thickness of the tubing would have produced tubes with the same thicknesses claimed in claims 8-10, 12 and 28 for use as concrete column forms. It is noted by the examiner that the limitations of "rigid" and "flexible" in claims 8 and 10 are of little patentable weight and are interpreted to be met by the obvious optimization of the thickness of the tube depending on the amount of strength required. Although Weekers and Fyfe do not recite the intended use limitation of a roll core, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Any tubular structure such as the tubes disclosed by Weekers and Fyfe could be

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used as a core to receive something rolled around it and therefore the structure produced by the combination of Weekers and Fyfe reads on the invention claimed in claim 12.

20. Regarding claim 21: The obvious modification of Weekers with the teachings of Fyfe would have produced a tube formed by spirally winding the laminate suggested above to form a multilayer tube (such as 4-5 layers disclosed by Weekers). In such a multilayer tube, the polymer fabric layer would be disposed between different layers of kraft paper since the laminate would be overlapping itself. Such a tube is interpreted to read on the sub-layer having each of the outer layers be kraft paper as claimed in claim 5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected grammage weights for the kraft paper used that would be appropriate for the concrete forming tube application. The obvious selection of materials of appropriate strength would have produced the same invention as claimed in claim 21.

21. Regarding claims 23 and 27: The combination of the teachings of Weekers and Fyfe provides a spirally wound tube having a polyethylene layer.

Response to Arguments

22. Applicant's arguments filed 3/29/10 have been fully considered but they are not persuasive.

23. Applicant has asserted on page 7 of the remarks that "Fabric layers that are impregnated with resin are substantially different from mesh material bonded to an outer

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layer as the present invention claims.” Applicant further asserts that impregnation is different from a polyolefin adhesive layer and that in the instant invention “the polyethylene or polypropylene acts as a film when used to bond rather an infill the material as taught by Fyfe”. However, in a mesh material, any polymer that would come in contact with the mesh would be expected to penetrate the open spaces in the mesh. The examiner is not persuaded that the fabric layer of Fyfe does not read on the mesh material claimed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michele L. Jacobson
Examiner
Art Unit 1782

/M. J./

/Rena L. Dye/
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